

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Serra et al.
SERIAL NO.: Not yet assigned GROUP NO.: Not yet assigned
FILING DATE: Herewith EXAMINER: Not yet assigned
TITLE: Article and Method for Temperature Regulation Using a Thermosensitive
Reactive Hydrogel Material

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with the provisions of 37 C.F.R. 1.97 and 1.98, Applicants hereby make of record the patents and publications listed on the accompanying PTO-1449 and PTO-892 forms, and other information contained herein, for consideration by the Examiner in connection with the examination of the above-identified patent application. Pursuant to 37 C.F.R. §1.98 (d), the cited references are not enclosed. The references were previously cited and made of record in Parent Application Serial No. 09/840,836, filed April 24, 2001. We have annotated for clarity (in blue ink) the document numbers on PTO-892 form provided by the Examiner on December 4, 2002 as Part of Paper No. 1.

REMARKS

In accordance with the provisions of 37 C.F.R. 1.97, this statement is being filed (CHECK ONE):

- ☒ (1) within three (3) months of the **filing date** of a national application other than a continued prosecution application under 37 C.F.R. 1.53(d), or within three (3) months of the **date of entry of the national stage** as set forth in 37 C.F.R. 1.491 in an international application, or before the mailing of the **first Office action** on the merits, or before the mailing of a **first Office action** after the filing of a request for continued examination under 37 C.F.R. 1.114; or
- ☐ (2) after the period defined in (1) but before the mailing date of a **final action** or a **notice of allowance** under 37 C.F.R. 1.311, and
- ☐ the requisite Statement is below, **OR**

- ☐ the requisite fee under 37 C.F.R. 1.17(p), namely **\$180.00**, is included herein, or
- ☐ (3) after the mailing date of a **final action** or **notice of allowance** but before the payment of the **issue fee**, **AND**
- ☐ the requisite Statement is below, **AND**
- ☐ the requisite petition fee under 37 C.F.R. 1.17(p), namely **\$180.00** is included herein.

It is respectfully requested that each of the patents and publications listed on the attached Form PTO-1449, and other information contained herein, be made of record in this application.

STATEMENT

As required under 37 C.F.R. 1.97(e), Applicant(s), through the undersigned, hereby state either that [check the appropriate space only if either (2) or (3) is checked on the previous page and the Statement is required]:

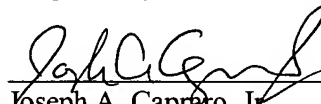
- ☐ 1. Each item of information contained in the Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application **not more than three months** prior to the filing of the Information Disclosure Statement; or
- ☐ 2. No item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this Statement after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to **any individual** designated in 37 C.F.R. 1.56(c) **more than three months** prior to the filing of the Information Disclosure Statement.

Respectfully submitted,

Date: December 8, 2003
Reg. No. 36,471

Tel. No.: (617) 248-7369
Fax No.: (617) 248-7100

2721335



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Boston, Massachusetts 02110

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NO. EL988705656US

FORM PTO-1449				ATTY DOCKET NO.		SERIAL NO.	
INFORMATION DISCLOSURE STATEMENT				55515 (45608)		09/840,836	
				APPLICANT(S): Serra, et al.			
				FILING DATE:		ART UNIT:	
				4/24/01		3743	
UNITED STATES PATENT DOCUMENTS							
EXAM. INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FIL. DATE IF APPR
	AA	3,367,319	2/6/68	Carter			
	AB	3,391,686	7/9/68	Wiswell			
	AC	3,402,708	9/24/68	Grega			
	AD	3,430,688	3/4/69	Crocker			
	AE	3,450,127	6/17/69	Harwood			
	AF	3,513,824	5/26/70	Fitzgerald			
	AG	3,536,059	10/27/70	Hearst, et al.			
	AH	3,572,314	3/23/71	Teague			
	AI	3,566,205	2/23/71	Walker, et al.			
	AJ	3,583,386	5/29/69	Slack			
	AK	3,884,216	9/19/74	McCartney			
	AL	4,167,932	9/18/79	Zebuhr			
	AM	4,294,225	10/13/81	Mayo			
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRAN YES/NO
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)							
	CA	Gels, Toyochi Tanaka; reprinted by UMASS Medical Library from Scientific American, January, 1981 p. 124-138					
	CB	Thermal Protection Performance of Survival Suits in Ice-Water, J. S. Hayward, B. Sc., Ph. D.; Aerospace Medical Association, Washington, D.C. reprinted from Aviation, Space, and Environmental Medicine, March, 1984					
Examiner:				Date:			

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UNITED STATES PATENT DOCUMENTS							
EXAM. INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FIL. DATE IF APPR
	AN	4,530,905	7/23/85	Freedman			
	AO	4,569,861	2/11/86	Smith, et al.			
	AP	4,718,899	1/12/88	Itoh, et al.			
	AQ	5,277,915	1/11/94	Provonchee, et al.			
	AR	5,447,689	9/5/95	Gibboni, et al			
	AS	5,722,482	3/3/98	Buckley			
	AT	5,955,188	9/21/99	Pushaw			
	AU	5,960,469	10/5/99	Nuckols, et al.			
	AV	6,025,287	2/15/00	Hermann			
	AW	6,130,304	10/10/00	Sumiya, et al.			
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRAN YES/NO
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)							
	CC	Volume-phase Transitions of Ionized N-Isopropylacrylamide Gels, Hirotsu, et al., J. Chem. Phys. 87 (2) 15 July 1987					
	CD	Heat Exchanges in Wet Suits, Wolff, et al.; The American Psysiological Society, pp. 770-777, 1985					
	CE	Handbook of Porous Media, ed. Kambiz Vafai, 2000					
Examiner:				Date:			

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OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)								
	CF	<i>Micro-Electro-Mechanics of Ionic Polymeric Gels As Electrically Controllable Artificial Muscles, Mohsen Shahinpoor; Journal of Intelligent Material Systems and Structures, Vol. 6-May, 1995</i>						
	CG	<i>The Effect of Leakage on the Insulation Provided by Immersion-Protection Clothing, Allan, et al. Aviation, Space, and Environmental Medicine, November, 1985</i>						
Examiner:				Date:				

Notice of References Cited

Application/Control No.

09/840,836

Applicant(s)/Patent Under

Reexamination

SERRA ET AL.

Examiner

Nihir Patel

Art Unit

3743

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U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-3,660,849	05-1972	Jonnes et al.	2/2.1
	B	US-2002/0023283	02-2002	Kania et al.	2/2.15
	C	US-6,032,409	03-2000	Obonai et al.	47/44
	D	US-4,880,858	11-1989	Farrar et al.	524/60
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

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	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
 Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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*	D	US-4,880,853	11-1989	Farrar et al. <i>US-4,880,858</i>	524/60
	E	US-5,722,482	03-1998	Buckley <i>US-5,722,482</i>	165/10
	F	US-5,929,214	07-1999	Peters et al. <i>US-5,929,214</i>	530/417
	G	US-5,277,915	01-1994	Provonchee et al. <i>US-5,277,915</i>	424/485
	H	US-5,723,145	03-1998	Shikinami et al. <i>US-5,723,145</i>	424/448
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

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on dates. Classifications may be US or foreign.

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	Examiner Nihir Patel		Art Unit 3743	Page 1 of 1

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	E	US-			
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	G	US-			
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